

FRONT VIEW

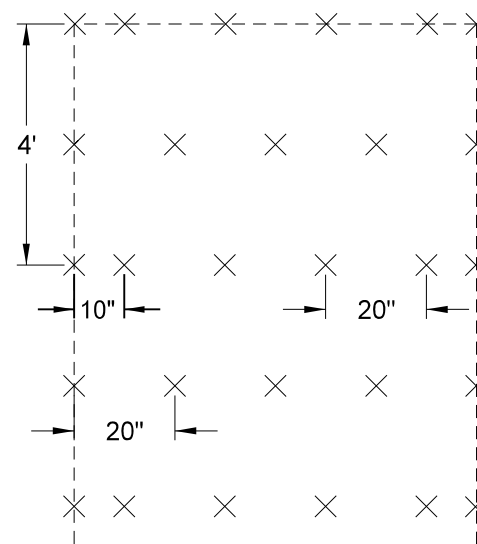
SIDE VIEW

TOP VIEW

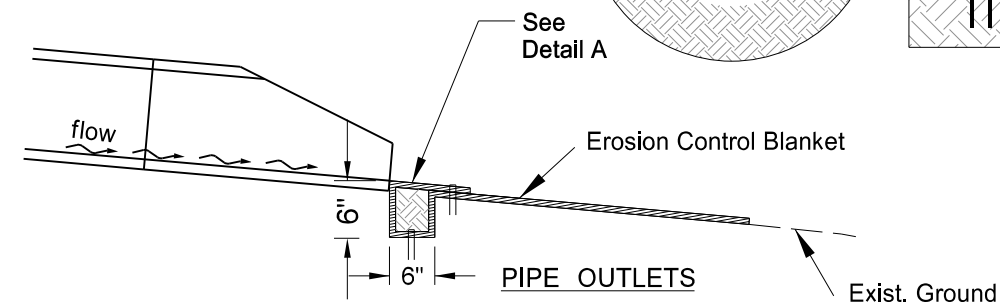
Inlet side - see applicable detail for pipe inlet.
Outlet side - see applicable detail for pipe outlet.

NOTE: Tuck the ECB a minimum of 6" into the embankment (against the flared end section) around the opening of the flared end section.

- Tuck this end a minimum of 6" into the embankment.



STAPLE PATTERN



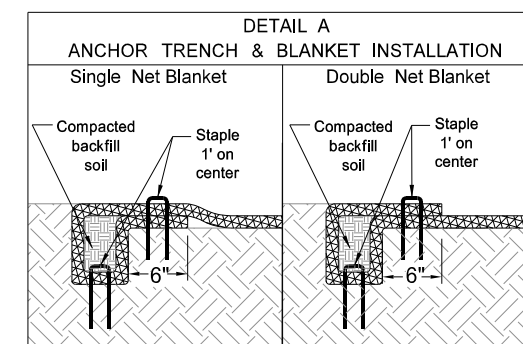
		STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	project number	sec	page

Erosion Control Blanket (ECB)								
Location to be Protected Station	Culvert Type Appr/CL	Pipe Diam (Inch)	No	Unit Quantity (SY)	Total Quantity			
					Type 1 (SY)	Type 2 (SY)	Type 3 (SY)	Type 4 (SY)
2+00 Rt	Appr	xx	x	xx	00	00	00	00
3+00 Rt	CL	xx	x	xx	00	00	00	00
5+20 Lt	CL	xx	x	xx	00	00	00	00
7+50 Lt	Appr	xx	x	xx	00	00	00	00
10+00 Rt	CL	xx	x	xx	00	00	00	00
12+00 Lt	CL	xx	x	xx	00	00	00	00
15+75 Rt	CL	xx	x	xx	00	00	00	00
21+26 Rt	CL	xx	x	xx	00	00	00	00
35+02 Lt	Appr	xx	x	xx	00	00	00	00
40+25 Lt	Appr	xx	x	xx	00	00	00	00
50+26 Rt	Appr	xx	x	xx	00	00	00	00
60+75 Rt	CL	xx	x	xx	00	00	00	00
75+29 Lt	CL	xx	x	xx	00	00	00	00
82+50 Lt	CL	xx	x	xx	00	00	00	00
91+65 Rt	Appr	xx	x	xx	00	00	00	00
91+65 Lt	Appr	xx	x	xx	00	00	00	00
101+26 Rt	Appr	xx	x	xx	00	00	00	00
105+33 Lt	Appr	xx	x	xx	00	00	00	00
130+56 Rt	CL	xx	x	xx	00	00	00	00
175+23 Lt	CL	xx	x	xx	00	00	00	00
Total (SYs)					000	000	000	000

APPROACH CULVERTS				
DIA	X	Y	Surface area to be protected	ECB
In	Ft	Ft	SF	SY
15	9.0	20.0	176.0	20
18	9.5	20.7	190.7	22
21	9.5	21.0	190.9	22
24	10.5	21.6	214.1	24
27	11.0	22.0	226.3	25
30	11.6	22.5	241.5	27
36	12.7	23.3	268.8	30
42	13.3	23.3	279.7	31
48	13.8	24.0	293.2	33
54	14.5	23.4	300.6	34
60	15.0	23.0	307.5	35
66	15.6	24.0	325.6	37
72	16.2	24.5	340.6	38

Note: Quantities based on 8:1 slope.

CENTERLINE CULVERTS										
DIA	X	Y	Surface area to be protected	ECB		DIA	X	Y	Surface area to be protected	ECB
In	Ft	Ft	SF	SY		In	Ft	Ft	SF	SY
24	10.5	19.6	193.1	22		24	10.5	17.6	172.1	20
27	11.0	20.0	204.3	23		27	11.0	18.0	182.3	21
30	11.6	20.5	218.3	25		30	11.6	18.5	195.1	22
36	12.7	21.2	242.1	27		36	12.7	19.2	216.7	24
42	13.3	21.2	251.8	28		42	13.3	19.2	225.2	25
48	13.8	22.0	265.6	30		48	13.8	20.0	238.0	27
54	14.5	21.5	273.7	31		54	14.5	19.5	244.7	28
60	15.0	21.0	278.3	31		60	15.0	19.0	248.3	28
66	15.6	22.0	295.7	33		66	15.6	20.0	264.5	30
72	16.2	22.5	309.2	35		72	16.2	20.5	276.8	31
Note: Quantities based on 6:1 slope.						Note: Quantities based on 4:1 slope.				



This document is preliminary and not for construction or implementation purposes.

Erosion Control at Culvert Flared End Sections

Project Description

Project Location